

WHAT IS CLAIMED IS:

1. An electronic component module comprising:

a pair of printed-circuit boards on which a shield layer is formed;

5 a spacer positioned between and fixed to said pair of printed-circuit boards, said spacer equipped with a shielding feature which forms as partitions at least a first cavity and a second cavity between said pair of printed-circuit boards;

at least a first electronic component positioned in said
10 first cavity and mounted on any one of said pair of printed-circuit boards and used in a first frequency band;

at least a second electronic component positioned in said second cavity and mounted on any one of said pair of printed-circuit boards, said second electronic component used
15 in a second frequency band different from said first frequency band; and

a plurality of terminals formed on a surface of one of said pair of printed-circuit boards, said surface opposite that on which said spacer is mounted, said terminals connected to
20 said first electronic component and said second electronic component via transmission lines.

2. The electronic component module according to claim 1, comprising at least one of antenna formed on a surface of
25 the other of said pair of printed-circuit boards which does not

mount said terminals, said surface opposite that on which said
spacer is mounted, wherein said antenna transmits and receives
radio waves in at least one of said first frequency band and
said second frequency band, said antenna is connected to said
5 corresponding electronic components.

3. The electronic component module according to claim
1, wherein said spacer is made of a metal or a nonmetal on which
a metallic shield layer is formed.
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4. The electronic component module according to claim
2, wherein said spacer is made of a metal or a nonmetal on which
a metallic shield layer is formed.

15 5. The electronic component module according to claim
1, wherein at least one of said electronic components is mounted
on said printed-circuit board via a substrate component with
higher heat resistance than said printed-circuit board.

20 6. The electronic component module according to claim
1, wherein said first electronic component is mounted on one
of said pair of printed-circuit boards while said second
electronic component is mounted on the other of said pair of
printed-circuit boards.

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